The opinion in support of the decision being entered today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

———————

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

———————

Ex parte ZHONG-NING (GEORGE) CAI

———————

Appeal 2006-2707
Application 09/749,792
Technology Center 2100

———————

Decided: July 19, 2007

———————

Before JAMES D. THOMAS, KENNETH W. HAIRSTON, and
JEAN R. HOMERE, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

This is a decision on Appellant's Request for Rehearing.

In a paper filed January 29, 2007, Appellant requested that we reconsider our decision dated November 29, 2006, wherein we sustained the Examiner's rejection of claims 1 through 20 under 35 U.S.C. § 103.

We have carefully reviewed our original decision in light of Appellant's request and we find no error in the analysis or logic set forth in

our original decision. We have given full consideration to Appellant's remarks.[1] We have, however, found no basis upon which to grant Appellant's request for rehearing. We, therefore, decline to make any changes to our prior decision with respect to the claims noted above for the reasons that follow.

Appellant argues at pages 3 through 5 of the Request that the Board overlooked or misapprehended Appellant's arguments that Georgiou fails to teach or suggest at least a "performance demanding level input." Particularly, at pages 4 and 5 of the Request, Appellant states the following:

> [A] "performance demanding input level input" in a processor, by its terms, describes an input that relates to a level of performance of the processor in accordance with demand.
>
> Moreover, the PDL . . . is not directed toward simply reducing the clock frequency of the processor upon the meeting of a temperature threshold. Instead, it is directed toward determining *whether* an application requires close to possible full processor speed or not (i.e., "performance *demand* level"). If the processor approaches a temperature limit but nevertheless high performance is demanded, the performance demanding level input may assert a value that causes the frequency reduction to be less aggressive. If, on the other hand, the processor approaches a temperature limit but high performance is not demanded, the performance demanding level input may assert a value that causes the frequency reduction to be more aggressive. The performance demanding level input is dependent on and directly related to "performance demand".

---

[1] Request for Rehearing at pages 1-6.

Applicant submits that the relevant sections of the cited reference Georgiou, on the other hand, are not directed toward monitoring or maintaining "performance" or assessing performance *requirements* of the system, but rather simply determining whether the temperature of the processor has exceeded a predetermined threshold, and reducing clock frequency based upon such a comparison...

Applicant submits the thermal sensor-processor embodiment taught in Georgiou is (sic) performance dependent at all; it is temperature-dependent. As described in the Board's summary above, a temperature comparator is used to determine overheating, upon which the clock frequency of the processor is reduced. This determination is based on temperature and temperature alone; the "performance" or the "performance demand" of the system is not considered at all.

As indicated in our original Opinion, we do not dispute that the precise language of claim 1 recites "a performance demanding level input." Further, as indicated in our original Opinion, we do not dispute that the Specification describes the "performance demanding level input" to be based upon the performance of a processor. We find, however, no portion of Appellant's Specification or claims that requires the performance demanding level input to exclude temperature as part of its determination to reduce the rate of clock frequency. To the contrary, the evidence before us indicates that temperature is an important factor in determining the frequency reduction. Particularly, the portion of paragraph 20 cited at page 4 of the Request describes the frequency reduction as a response to high

temperatures. Further, the preamble of claim 1, reproduced at page 2 of the Opinion, sets forth *a dynamic power control of a processor based on a thermal condition*. Additionally, the body of the claim calls for a *performance demanding level input to determine a rate of temperature-related frequency*. Clearly, the claim explicitly requires that the performance demanding level input be temperature related. Similarly, we find that Georgiou's teaching of reducing the clock frequency of a processor upon attaining a predetermined temperature is both performance and temperature related. In fact, Georgiou explicitly teaches improving the performance and temperature of a computer upon reducing its frequency. (See Title and column 2.) Even assuming that Appellant had overlooked such teaching in Georgiou's disclosure, one of ordinary skill would have readily recognized that a processor performs more effectively and efficiently when it is not overheating. Therefore, Appellant's attempt to isolate the processor's performance from its operating temperature is not persuasive. Thus, we do not agree with Appellant that, in the original Opinion, the Board misapprehended Appellant's arguments that Georgiou fails to teach a performance demanding level input.

Therefore, we maintain our position that the ordinarily skilled artisan would have readily found that Georgiou in various combinations with McDermott and Ko renders claims 1-20 unpatentable.

CONCLUSION

In view of the foregoing discussion, we grant Appellant's request for rehearing to the extent of reconsidering our decision. However, we <u>deny</u> Appellant's request with respect to making any change thereto.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

REQUEST FOR REHEARING DENIED

gw

KENYON & KENYON LLP
1500 K STREET N.W. SUITE 700
WASHINGTON, DC 20005